

REMARKS

In the Action, claims 1, 3-11, 14-21, 24-27, 30-33, 35 and 36 are rejected, and claims 12, 13, 22, 23, 28, 29 and 34 are objected to as depending from a rejected base claim, but indicated as being allowable if rewritten in independent form. In response, new claims 37-39 are added to depend from claim 1. The pending claims in this application are claims 1 and 3-39, with claims 1, 14, 26 and 35 being independent.

Claim 37 is added to depend from claim 1 and recites that the sulfur-containing active is an extruded solid having a water content of less than 5 wt% and the masking agent is coated onto the extruded solid, while claim 38 recites that the masking agent is sprayed onto the extruded solid and where the masking agent is anhydrous. Claim 39 depends from claim 35 and recites the agrichemically active ingredient, binder and aromatic solvent are extruded to form a solid and where the masking agent is coated onto the extruded solid by spraying. These claims are supported by original claim 26 and the specification as originally filed.

In view of these amendments and the following comments, reconsideration and allowance are requested.

Rejection Under 35 U.S.C. § 103(a)

Claims 1-11, 14-21, 24, 25, 30, 31, 35 and 36 are rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,337,323 to Cummings et al. in view of U.S. Patent No. 5,645,854 to Neumann et al. and U.S. Patent No. 5,118,506 to Eichoefer. Cummings et al. is cited for disclosing a chemically stable insecticidally active pellet having a low moisture content which can also contain a binder such as vinylpyrrolidone vinyl acetate copolymer. The Action further contends that Cummings et al. discloses reducing offensive odors of a composition. Neumann et al. is cited for disclosing an insecticide formulation from lemon

oil, pinene and limonene. Eichoefer is cited for disclosing an insecticidal pellet containing pine oil and α -pinene. The rejection is based on the position that it would be obvious to one of ordinary skill in the art to use the essential oils and terpineols of Neumann et al. and Eichoefer in the composition of Cummings et al.

The claims are not obvious since the cited patents either standing alone or in combination do not disclose or suggest a solid agrichemically effective formulation containing sulfur-containing active ingredient solids, an aromatic solvent and a masking agent comprising a terpene or oxygenated derivative thereof in an amount to reduce odors from the sulfur-containing active ingredients. As noted in the Action, Cummings does not disclose reducing the odors of the sulfur-containing active ingredients using a terpene or oxygenated derivative. Furthermore, Neumann et al. and Eichoefer provide no suggestion of using a terpene or oxygenated derivative in the composition of Cummings et al.

The invention is directed to the discovery of a specific type of masking agent that is particularly effective in reducing the offensive odors of sulfur-containing actives without providing an overpowering perfume odor. It is known that sulfur-containing actives, and particularly acephate, have a strong and offensive odor. The strong and offensive odor of acephate has limited its use. In particular, public areas such as golf courses avoid the use of acephate because of the strong odor in spite of its effectiveness. Conventional perfumes and fragrances do not effectively mask the odor of acephate and produce an overpowering perfume smell. The invention is directed to the discovery that terpenes and oxygenated derivatives effectively mask the strong odor of acephate without a heavy perfume smell. Usage of an acephate products according to the claimed invention have exhibited little or no acephate odor after application and a light odor of the terpene which dissipates after a short

period of time. The prior acephate compositions using other common masking agents are not effective in masking the acephate odor.

The Action indicates that Cummings et al. discloses reducing the offensive odors associated with acephate usage and cites column 6, lines 27 and 28. This passage does not support this contention. Furthermore, the passage is taken out of context of the entire sentence and when read as a whole, does not suggest reducing offensive odors from acephate usage. The sentence specifically states that the composition of Cummings et al. is formed without the use of organic solvents and without the use of conventional formulating agents. The absence of solvents and the conventional formulating agents when produced by the invention of Cummings et al. results in higher strength pellets and reducing the offensive odors associated with prior powder applications. This passage clearly indicates that the reduced offensive odors are the result of the absence of the organic solvents and the conventional formulating agents. This passage does not support the position that Cummings et al. discloses reducing the odors of acephate compositions. Furthermore, this passage does not support the position that Cummings et al. discloses the use of a masking agent to reduce the odors of sulfur-containing active ingredients.

The Action also refers to Example 4 which discloses generally the use of reodorants. However, Cummings et al. does not define the reodorant by its function. The Action contends that reodorants are defined as “powerful pleasant smelling chemicals which are added to a formulation to mask unpleasant odors.” However, the Action fails to cite any dictionary authority for this definition. The Action does not refer to any authority for the position that reodorants are powerful pleasant smelling chemicals. Furthermore, this definition is inconsistent with the common understanding of the term “reodorant”. A reodorant is commonly referred to as a compound that will change the odor of a substance. A

reodorant is not necessarily a powerful pleasant smelling chemical that is used to mask unpleasant odors as suggested in the Action. Furthermore, Cummings et al. does not identify the purpose of the reodorant in Example 4 or the function of the reodorant.

Furthermore, Example 4 of Cummings refers to Stepan Toximul 3406F and Quest N-6574 as “reodorant systems”. The Toximul 3406F is known to be a sulfonated anionic surfactant. Thus, the reodorants specifically disclosed in Cummings et al. are not powerful pleasant smelling chemicals as asserted in the Action. Therefore, the definition of a reodorant in the Action is inconsistent with the specific disclosure of Cummings et al. The reodorant systems disclosed in Cummings et al. provide no suggestion that the compounds are capable of masking the sulfur-containing active ingredients as recited in the claims or are powerful pleasant smelling chemicals.

Neumann et al. relates to a gel formulation containing pyrethroid insecticide and a vaporization regulating agent. The formulation is used as a mosquito fogger for treating a target area. Neumann et al. does not disclose or suggest systemic insecticides, acephate or extruded granules as in the claimed invention. Neumann et al. discloses the use of natural perfumes and synthetic perfumes that can be vaporized during use of the insecticide. The long list of natural and synthetic perfumes disclosed in Neumann et al. provide no suggestion of a masking agent capable of reducing the odors of sulfur-containing compounds. Moreover, Neumann et al. clearly provides no motivation or incentive to use a terpene or oxygenated derivative in an effective amount with a sulfur-containing active ingredient as claimed.

Eichoefer discloses an insecticidal pellet which can contain pine oil as the insecticidal component. More specifically, Eichoefer discloses the use of pine oil as the active ingredient in treating fire ants. There is no suggestion in Eichoefer of using the pine oil in combination

with another active insecticidal compound. Eichoefer also fails to disclose or suggest the use of pine oil as a masking agent for an insecticide, a sulfur-containing compound, and particularly acephate. Eichoefer discloses the pine oil as the active ingredient and does not disclose the pine oil in combination with other active ingredients. Therefore, Eichoefer provides no motivation or incentive to one of ordinary skill in the art to use the pine oil in a composition containing a sulfur-containing compound in an effective amount to mask the odors of the sulfur-containing compound.

Neumann et al. and Eichoefer do not disclose the effectiveness of reducing odors of a sulfur-containing active ingredient such as acephate. The present invention is specifically directed to the discovery that the terpene and oxygenated derivatives are particularly effective in masking the odors of sulfur-containing compounds, and particularly acephate.

The advantages and effects of the claimed invention are not obvious to one of ordinary skill in the art in view of Cummings et al., Neumann et al., and Eichoefer. The specific advantages and odor reducing properties of a terpene with a sulfur-containing compound such as acephate are an unexpected result. The cited art provides no expectation of success. Accordingly, independent claim 1 is in condition for allowance. The claims depending from claim 1 are also allowable as depending from an allowable base claim and for reciting additional features of the invention that are not disclosed or suggested in the art of record. For example, the combination of the cited art does not disclose the active ingredients of claims 3 and 4, the masking agents of claims 5-9 or the binders of claims 10 and 11, in combination with the features of claim 1. Independent claim 14 is allowable for the reasons advanced with respect to claim 1. Claims 15-21, 24 and 25 are allowable as depending from an allowable base claim.

Claim 30 is also rejected as being obvious over the combination of Cummings et al., Neumann et al., and Eichoefer. However, claim 30 depends directly from claim 26 which is not rejected over the cited art. Therefore, the rejection of claims 30 and 31 is submitted to be improper. Independent claim 35 and dependent claim 36 are also allowable for the reasons advanced with respect to claim 1.

Double Patenting Rejection

Claims 26, 27, 30, 31, 32 and 33 are provisionally rejected for obviousness-type double patenting over co-pending application 10/508,407. This rejection appears to be based on the position that it would be obvious to use a masking agent in the composition of the co-pending application.

Initially, it is noted that the present application was filed February 8, 2002. The cited co-pending application has an effective filing date of March 27, 2002. Thus, the present application has an earlier effective filing date and will expire prior to any patent that issues from the '407 application. Since the present application is earlier than the cited co-pending application, the obviousness-type double patenting rejection should be withdrawn.

Furthermore, the claims of the '407 application are directed to a process of making granules by compacting a solid that has been milled to a specific crystal length and average crystal width. This has no relation to the claimed invention containing a terpene or oxygenated derivative as a masking agent for sulfur-containing compounds. In addition, the Action provides no basis for the position that it would be obvious to use the claimed masking agent in a granulated formulation obtained by the process of the '407 application claims. Accordingly, Applicant submits that the claims are not obvious over the claims of the co-pending '407 application.

In view of these amendments and the above comments, reconsideration and allowance are requested.

Respectfully submitted,



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